

ABSTRACT

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A method for constructing an array of synthetic molecular constructs, by forming a plurality of molecular constructs having a scaffold backbone of a chemical molecule comprising a linear, branched or cyclic organic compound

- 10 having at least atoms of carbon, nitrogen, sulfur, phosphorus, or combinations thereof, and at least one location on the molecule capable of undergoing reaction with other molecules for attachment of at least one structural diversity element; laying out an array possessing a logical
- 15 ordering of sub-arrays of the molecular constructs; providing each sub-array with molecular constructs having the scaffold backbone and at least one structural diversity element which is different from the others; and relating each sub-array within the array to all other sub arrays by the difference in 20 the structural diversity elements.

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